

**National Security Agency
Military Construction, Defense-Wide
FY 2012 Budget Estimates
(\$ in Thousands)**

<u>State/Installation/Project</u>	<u>Authorization Request</u>	<u>Approp. Request</u>	<u>New/ Current Mission</u>	<u>Page No.</u>
Colorado				
Buckley AFB Mountainview Operations Facility	140,932	140,932	C	171
Georgia				
Fort Gordon Whitelaw Wedge Building Addition	11,340	11,340	C	174
Maryland				
Fort Meade High Performance Computing Center Incr 1	860,579	29,640	C	178
Utah				
Camp Williams IC CNCI Data Center 1, Incr 3	-	246,401	C	182
United Kingdom				
RAF Menwith Hill Station MHS PSC Construction Generator Plant	68,601	68,601	C	186
Total	1,081,452	496,914		

1. COMPONENT NSA/CSS DEFENSE		FY 2012 MILITARY CONSTRUCTION PROGRAM					2. DATE February 2011				
3. INSTALLATION AND LOCATIONS ADF-C Buckley Air Force Base, Colorado			4. COMMAND NSA/CSS				5. AREA CONSTRUCTION COST INDEX N/A				
6. PERSONNEL STRENGTH Tenant of US ARMY		PERMANENT		STUDENTS			SUPPORTED			TOTAL	
A. AS OF		OFF	ENL	CIV	OFF	ENL	CIV	OFF	ENL	CIV	
B. END FY					CLASS	IFIED					
7. INVENTORY DATA (\$000)											
A. TOTAL ACREAGE											
B. INVENTORY TOTAL AS OF Aug 1999											
										0	
C. AUTHORIZED NOT YET IN INVENTORY											
										0	
D. AUTHORIZATION REQUESTED IN THIS PROGRAM											
										140,932	
E. AUTHORIZATION INCLUDED IN FOLLOWING PROGRAM											
										0	
F. PLANNED IN NEXT THREE YEARS											
										0	
G. REMAINING DEFICIENCY											
										0	
H. GRAND TOTAL											
										140,932	
8. PROJECTS REQUESTED IN THIS PROGRAM:											
<u>CATEGORY</u>		<u>PROJECT</u>		<u>PROJECT TITLE</u>			<u>COST</u>		<u>DESIGN</u>		<u>STATUS</u>
<u>CODE</u>		<u>NUMBER</u>					<u>(\$000)</u>		<u>START</u>		<u>COMPLETE</u>
141		23051		MOUNTAINVIEW			140,932		OCT 10		0%
9. FUTURE PROJECTS:											
a. INCLUDED IN FOLLOWING PROGRAM											
<u>CATEGORY</u>		<u>PROJECT TITLE</u>						<u>COST</u>			
<u>CODE</u>								<u>(\$000)</u>			
b. PLANNED IN NEXT THREE YEARS											
<u>CATEGORY</u>		<u>PROJECT TITLE</u>						<u>COST</u>			
<u>CODE</u>								<u>(\$000)</u>			
10. MISSION OR MAJOR FUNCTION											
Agency activities are classified.											
11. OUTSTANDING POLLUTION AND SAFETY DEFICIENCIES:											
A. AIR POLLUTION										0	
B. WATER POLLUTION										0	
C. OCCUPATIONAL SAFETY AND HEALTH										0	

1. Component NSA/CSS Defense	FY 2012 MILITARY CONSTRUCTION PROJECT DATA			2. Data February 2011
3. INSTALLATION AND LOCATION ADF-C Buckley Air Force Base, Colorado		4. PROJECT TITLE MOUNTAINVIEW OPERATIONS BUILDING		
5. PROGRAM ELEMENT	6. CATEGORY CODE 81320	7. PROJECT NUMBER 23051	8. PROJECT COST (\$000) \$140,932	
9. COST ESTIMATES				
ITEM	U/M	QUANTITY	UNIT COST	COST (\$000)
PRIMARY FACILITY				
Operations Building	LS			<u>91,574</u>
Water, Sewer & Gas	LS			(71,176)
Electrical	LS			(146)
Steam and /or Chilled Water Distrubtion	LS			(3,759)
Paving, Walks, Curbs & Gutters	LS			(287)
Storm Drainage	LS			(2,646)
Fire Protection	LS			(151)
Building Security (Antiterrorism/Force Protection)	LS			(151)
Antiterrorism / Force Protection / CSP	LS			(35)
Site Improvements/ Earthworks/Demolition	LS			(9,751)
				(3,623)
SUPPORTING FACILITIES				
Chiller Building	LS			<u>35,409</u>
Generator Building	LS			(3,963)
Xcel Energy Feeder	LS			(23,206)
LEED & Commissioning	LS			(4,150)
				(4,090)
TOTAL CONSTRUCTION COST				
Contingency (~5%)				<u>126,983</u>
SUBTOTAL				6,349
SIOH (5.70%)				<u>133,332</u>
Total Project Request				7,600
				<u>140,932</u>
TOTAL PROJECT COST				
				<u>140,932</u>
Equipment & Utilities Provided From Other Appropriation				(138,451)

10. DESCRIPTION OF PROPOSED CONSTRUCTION: Design and build an approximately 200,000 SF permanent operations facility to house mission personnel currently located in modular trailers. Building services and systems for electrical, mechanical and fire alarm and suppression will also be provided. Earthwork will include rough grading, bulk excavation, service entrance infrastructure, storm drainage structures, and duct banks for building utility services. Site work will include final grading, curb and gutter installation, road paving, walkways, groundcover and landscaping. This project also provides 650 new parking spaces within the ADF campus Fenceline, replacing parking lost to the new construction and providing required parking for increased staff and visitors. This project scope also includes the de-commissioning and demolition/disposal of the existing 45,000 SF assembly of modular trailers. Security and Anti-Terrorism measures include fencing, access control and alarms systems, cameras, and exterior lighting. Supporting facilities include - a new electrical service feed, an emergency backup power generation facility with five 2.5MW generators with selective catalytic reduction emissions systems, and a 1000 ton chiller plant.

11. REQUIREMENT: 200,000 SF Adequate: None Substandard: Modular Trailers (Space & Cooling)

PROJECT: Design and Build a new 850 person 200,000SF permanent facility to relocate mission personnel from modular trailers on the ADF-C campus and provide an avenue for the extension of existing mission into the future.

REQUIREMENT: The project is required to establish a permanent facility for mission personnel to move into. The building is intended to be an extension of existing mission on the ADF-C and to accommodate mission growth and better collaboration. The building will house approximately 850 people. There will be a physical connection between existing north most building and this new facility. There will be new parking provided to accommodate the addition of this building on campus. Part of the parking will replace displaced parking as a result of the building addition. A new power feed to the campus is required and will be added as a part of this project. Upon completion of the construction, the Modular trailers will be demolished.

1. Component NSA/CSS DEFENSE	FY 2012 MILITARY CONSTRUCTION PROJECT DATA		2. Date February 2011
3. Installation and Location ADF-C Buckley Air Force Base, Colorado		4. Project Title MOUNTAINVIEW OPERATIONS BUILDING	
5. Program Element	6. Category Code 81320	7. Project Number 23051	8. Project Cost (\$000) \$140,932

CURRENT SITUATION: Mission personnel are currently located in Modular trailers. There are additional personnel currently located within the ADF that can be relocated as a result of this project. The modular trailers are past their life expectancy and as a result have developed Space and cooling issues as the number of mission personnel increases. Power space and cooling are major issues on the ADF campus.

IMPACT IF NOT PROVIDED: If this project is not provided, mission personnel will be forced to remain in outdated modular trailers, that over time have developed space and cooling deficiencies, leading to a work environment which is no longer ideal or adequate to fully support mission requirements. The capability of mission to grow will be stunted as required space would not be available.

ADDITIONAL: This project has been coordinated with multi-agency input covering a number of disciplines to include physical security, and complies with all required physical security and/or combating terrorism measures. Building and Utility requirements have been explored throughout the development of this project, and the design as it stands has been chosen as the most feasible option to meet said requirements. Construction on the Buckley Air Force Base (BAFB) is more complex than at similar military installations for several reasons. First, the nature of work being done at the ADF-C and subsequently BAFB mandates very closely scheduled events, with outages and other sensitive work typically occurring on weekends and at night. Second, limited access to controlled facilities during the programming and design phases can lead to unforeseen conditions during construction. Finally, access to the installation, clearances for personnel, waiting for escorts, and other daily processes at NSA create additional costs for contractors. Escorts are required for positive control of access to primary and secondary utilities which service critical NSA operational facilities. Stormwater management to mitigate environmental impact per EISA requirements are included. Facility will be designed and certified to the highest LEED certification attainable within available resources with a target of LEED-NC Silver and will include: green roof, sustainable site characteristics, water and energy efficiency, materials and resources criteria, and indoor environmental quality. This project is to be compliant with the current version of the Maryland Procurement Office (MPO), Facilities Engineering Design Standards (FEDS).

/s/ _____
Jeffrey P. Rutt, P.E.
Technical Director, I&L

12. SUPPLEMENTAL DATA:

1. Status

(a) Design Start:	Oct 2010
(b) Design 35% Complete:	Jan 2011
(c) Construction Start:	Jan 2012
(d) Construction Complete:	Dec 2013
(e) Type of Contract:	Design/Bid/Build

2. Total Cost

Construction:	\$140,932
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1. COMPONENT NSA/CSS DEFENSE	FY 2012 MILITARY CONSTRUCTION PROGRAM							2. DATE February 2011		
3. INSTALLATION AND LOCATIONS Fort Gordon, Georgia					4. COMMAND NSA/CSS			5. AREA CONSTRUCTION COST INDEX .84		
6. PERSONNEL STRENGTH	PERMANENT				STUDENTS			SUPPORTED		TOTAL
Tenant of USAF	OFF	ENL	CIV	OFF	ENL	CIV	OFF	E N L	CIV	
A. AS OF										
B. END FY				CLASS	IFIED					
7. INVENTORY DATA (\$000)										
A. TOTAL ACREAGE										0
B. INVENTORY TOTAL AS OF Jul 2010										340,854
C. AUTHORIZED NOT YET IN INVENTORY										0
D. AUTHORIZATION REQUESTED IN THIS PROGRAM										11,340
E. AUTHORIZATION INCLUDED IN FOLLOWING PROGRAM										0
F. PLANNED IN NEXT THREE YEARS										0
G. REMAINING DEFICIENCY										0
H. GRAND TOTAL										352,194
8. PROJECTS REQUESTED IN THIS PROGRAM:										
<u>CATEGORY CODE</u>	<u>PROJECT NUMBER</u>	<u>PROJECT TITLE</u>				<u>COST (\$000)</u>	<u>DESIGN START</u>	<u>STATUS COMPLETE</u>		
141	23994	WHITELAW WEDGE (FY12)				11,340	OCT10	0%		
9. FUTURE PROJECTS:										
a. INCLUDED IN FOLLOWING PROGRAM										
<u>CATEGORY CODE</u>	<u>PROJECT TITLE</u>				<u>COST (\$000)</u>					
b. PLANNED IN NEXT THREE YEARS										
<u>CATEGORY CODE</u>	<u>PROJECT TITLE</u>				<u>COST (\$000)</u>					
10. MISSION OR MAJOR FUNCTION Agency activities are classified.										
1. OUTSTANDING POLLUTION AND SAFETY DEFICIENCIES:										
A. AIR POLLUTION										0
B. WATER POLLUTION										0
C. OCCUPATIONAL SAFETY AND HEALTH										0

1. Component NSA/CSS DEFENSE		FY 2012 MILITARY CONSTRUCTION PROJECT DATA		2. Date February 2011	
3. Installation and Location Fort Gordon, Georgia			4. Project Title WHITELAW WEDGE BUILDING ADDITION		
5. Program Element	6. Category Code 141	7. Project Number 23994	8. Project Cost (\$000) \$11,340		
9. COST ESTIMATES					
Item		U/M	Quantity	Unit Cost	Cost (\$000)
PRIMARY FACILITY					<u>7,888</u>
Security Operations Center (SCIF)		LS			(7,600)
Antiterrorism/Force Protection		LS			(200)
Building Information Systems		LS			(88)
SUPPORTING FACILITIES					<u>1,972</u>
Electric Service and Distribution		LS			(651)
Water, Sewer, Gas Distribution		LS			(160)
Steam and/or Chilled Water Distribution		LS			(480)
Paving, Walks, Curbs and Gutters		LS			(105)
Storm Drainage		LS			(120)
Site Improvements		LS			(146)
Information Systems		LS			(310)
TOTAL CONSTRUCTION COST					<u>9,860</u>
Contingency (~5%)					493
SUBTOTAL					<u>10,353</u>
SIOH (5.70%)					590
Design/build - Design Cost					394
Total Project Request					<u>11,337</u>
TOTAL PROJECT COST (ROUNDED)					<u>11,340</u>
Equipment / Furniture / IT & Security Fit-up Provided From Other Appropriations					(12,951)
10. DESCRIPTION OF PROPOSED CONSTRUCTION: This project provides for an addition to the newly constructed facility, within a fenced, limited access complex to accommodate current mission and validated mission growth. The new addition will be approximately 28,000 SF of Sensitive Compartmented Information Facility (SCIF) space. Supporting facilities include Heating and Air conditioning systems with redundant utilities, electrical service, exterior and security lighting, fire protection and alarm systems, information systems, and site improvements. Access for the handicapped will be provided. Comprehensive building and furnishings related interior design services will also be provided. The new facility is to be design to a similar specification as the existing facility.					
11. REQUIREMENT: 529,099SF ADEQUATE: 501,699SF SUBSTANDARD: None					
PROJECT: Construct an addition to the existing operations and support facility for intelligence activities.					
REQUIREMENT: This project is required to provide ~ 28,000 square foot extension to the existing Whitelaw Building located at Ft. Gordon, Georgia. The new extension is to be designed to a similar specification as the existing facility. The project will include but not be limited to the following and any other requirements resulting from design and or mission developments:					
(1) Site Planning/Project Management					
Adequate management facilities for U.S. Government and local services will be provided for interim project management to include office trailers and any other requirements resulting from design and or mission developments.					
(2) Facilities					
Enhancements to the building for IT and Security include construction as a Sensitive Compartmented Information Facility (SCIF), as well as, requirements related to Antiterrorism Force Protection (AT/FP) to a design and specification similar to the existing facility.					
(3) Structural					
Facility will be designed and constructed in accordance with the Unified Facilities Criteria (UFC) to a design and specification similar to the existing facility and any other requirements resulting from design and or mission developments.					

1. Component NSA/CSS DEFENSE	FY 2012 MILITARY CONSTRUCTION PROJECT DATA		2. Date February 2011
3. Installation and Location Fort Gordon, Georgia		4. Project Title WHITELAW WEDGE BUILDING ADDITION	
5. Program Element	6. Category Code 141	7. Project Number 23994	8. Project Cost (\$000) \$11,340

REQUIREMENT (Continued)

(4) Electrical

- a) Supervisory Control and Data Acquisition (SCADA) to either PDU level or distribution panel level and EMCS, as required.
- b) Existing Back-up capability for electrical equipment of the existing facility is to be retained and any other requirements resulting from design and or mission developments are to be an integral part of design consideration.

(5) Mechanical

- a) Chilled water system is to be designed to support both air and water-cooled equipment, with SCADA and EMCS as required.
- b) Existing Back-up capability for mechanical equipment and air distribution of existing facility is to be retained.
- c) Fire protection is to be an integral part of design consideration.
- d) Any other requirements resulting from design and or mission developments are to be an integral part of design consideration.

(6) Security Systems

Video surveillance, Intrusion detection are to be an integral part of design consideration.

Facility will be designed and certified to the highest LEED certification attainable within available resources with a target of LEED-NC Silver and will include: sustainable site characteristics, water and energy efficiency, materials and resources criteria, and indoor environmental quality. Stormwater management to mitigate environmental impact per EISA requirements are included. This project is to be compliant with the current version of the Maryland Procurement Office (MPO), Facilities Engineering Design Standards (FEDS).

CURRENT SITUATION:

The capacity of the existing facility at the planned location will not meet anticipated mission requirements.

IMPACT IF NOT PROVIDED:

Current and anticipated mission requirements will not be met without completion of this project in the specified time frame.

ADDITIONAL:

- a) This project has been coordinated with the installation physical security plan, and all physical security measures are included.
- b) All required environmental and AT/FP measures are included.
- c) This project will provide government support facilities, including but not limited to trailers or other suitable office space, communications equipment and services, furniture and other support, as required, to manage the design and construction phases of the project and any other requirements resulting from design and or mission developments.

1. Component NSA/CSS DEFENSE	FY 2012 MILITARY CONSTRUCTION PROJECT DATA		2. Date February 2011
3. Installation and Location Fort Gordon, Georgia			4. Project Title WHITELAW WEDGE BUILDING ADDITION
5. Program Element	6. Category Code 141	7. Project Number 23994	8. Project Cost (\$000) \$11,340

/s/ _____
Jeffrey P. Rutt, P.E.
Technical Director, I&L

12. SUPPLEMENTAL DATA:

a) Status

(i) Date Design Started Oct 2010
(ii) Percent Completed as of Jan 2011 ~35%
(iii) Date Design - Build RFP Completed Jul 2011
(iv) Parametric Estimates have been used to develop project cost
(v) Type of Design Contract Design/Build

b) Basis

(i) Standard or Definitive Design: No
(ii) Date Design was Most Recently Used: N/A
(iii) Percentage of Design Utilizing Standard Design N/A

c) Total Design Cost (Total \$000)

(i) Production of Plans and Specs
Design-Build RFP – P&D \$1,134
Design-Build Design – MILCON \$394
(ii) All Other Design Cost – P&D \$100
(ii) Total Design Cost (iii)=(i)+(ii) or (iv)+(v) \$1,628
(iv) Contract
Design-Build RFP \$1,134
Design-Build Design \$394
(v) In House \$100

d) Construction Contract Award Oct 2011

e) Construction Start Nov 2011

f) Construction Complete - Project May 2013

1. COMPONENT NSA/CSS DEFENSE		FY 2012 MILITARY CONSTRUCTION PROGRAM					2. DATE February 2011	
3. INSTALLATION AND LOCATION Fort Meade, Maryland			4. COMMAND NSA/CSS				5. AREA CONSTRUCTION COST INDEX 1.00	
6. PERSONNEL STRENGTH		PERMANENT		STUDENTS		SUPPORTED		TOTAL
IC Community Installation		OFF	ENL	CIV	OFF	ENL	CIV	
a. AS OF					x			
b. END FY					CLASS	IFIED		
7. INVENTORY DATA (\$000)								
A. TOTAL ACREAGE								TBD
B. INVENTORY TOTAL AS OF DEC 2010								TBD
C. AUTHORIZED NOT YET IN INVENTORY								0
D. AUTHORIZATION REQUESTED IN THIS PROGRAM								860,579
E. AUTHORIZATION INCLUDED IN FOLLOWING PROGRAM								399,939
F. PLANNED IN NEXT THREE YEARS								431,000
G. PLANNING AND DESIGN COST								35,000
H. REMAINING DEFICIENCY								0
G. GRAND TOTAL								895,579
8. PROJECTS REQUESTED IN THIS PROGRAM:								
<u>CATEGORY</u>	<u>PROJECT</u>	<u>PROJECT TITLE</u>			<u>COST</u>	<u>DESIGN</u>	<u>COMPLETE</u>	
<u>CODE</u>	<u>NUMBER</u>				<u>(\$000)</u>	<u>START</u>		
141	TBD	HIGH PERFORMANCE						
		COMPUTING CENTER (FY12)			\$29,640	Nov 2010	Sep 2011	
		PLANNING AND DESIGN (FY12)			\$35,000			
9. FUTURE PROJECTS:								
a. INCLUDED IN FOLLOWING PROGRAM								
<u>CATEGORY</u>	<u>PROJECT</u>	<u>PROJECT TITLE</u>			<u>COST</u>			
<u>CODE</u>	<u>NUMBER</u>				<u>(\$000)</u>			
141	TBD	HIGH PERFORMANCE COMPUTING CENTER (FY13)			\$399,939			
b. PLANNED IN NEXT THREE YEARS								
<u>CATEGORY</u>	<u>PROJECT</u>	<u>PROJECT TITLE</u>			<u>COST</u>			
<u>CODE</u>	<u>NUMBER</u>				<u>(\$000)</u>			
141		HIGH PERFORMANCE COMPUTING CENTER (FY14)			\$431,000			
10. MISSION OR MAJOR FUNCTION Agency activities are classified.								
11. OUTSTANDING POLLUTION AND SAFETY DEFICIENCIES:								
A. AIR POLLUTION					TBD			
B. WATER POLLUTION					TBD			
C. OCCUPATIONAL SAFETY AND HEALTH					TBD			

1. COMPONENT NSA/CSS DEFENSE		FY 2012 MILITARY CONSTRUCTION PROJECT DATA		2. Date February 2011	
3. Installation and Location Fort Meade, Maryland			4. Project Title HIGH PERFORMANCE COMPUTING CENTER INCREMENT 1 (HPCC)		
5. Program Element	6. Category Code 141	7. Project Number TBD	8. Project Cost (\$000) \$860,579 Authorized FY12 \$860,579 Appropriated FY12 \$29,640		
9. COST ESTIMATES					
Item		U/M	Quantity	Unit Cost	Cost (\$000)
PRIMARY FACILITY					<u>567,828</u>
Building Modular Shells		LS			(50,500)
Mechanical		LS			(118,428)
Electrical		LS			(225,040)
Building Enhancements		LS			(65,200)
Site Preparation		LS			(19,380)
Fire Protection		LS			(5,020)
Building Security (Antiterrorism/Force Protection)		LS			(15,140)
Communications		LS			(7,040)
Commissioning		LS			(31,500)
General Conditions		LS			(30,580)
SUPPORTING FACILITIES					<u>180,600</u>
Interim Visitor Control Center		LS			(9,490)
Vehicle Control Center/Interim Vehicle Control Center		LS			(2,750)
Primary Electrical Service		LS			(28,600)
Site Improvements/Demolition		LS			(7,400)
General Construction (water, sewer, gas)		LS			(101,510)
Site Security Perimeter Control (Anti-Terrorism/Force Protection)		LS			(21,700)
Construction Security		LS			(9,150)
TOTAL CONSTRUCTION COST					<u>748,428</u>
Contingency (~5%)					37,421
SUBTOTAL					<u>785,849</u>
SIOH (5.70%)					44,793
Design/build - Design Cost					29,937
Total Project Request					<u>860,579</u>
TOTAL PROJECT COST (ROUNDED)					<u>860,579</u>
Equipment / Furniture / IT & Security Fit-up Provided From Other Appropriations					(112,000)
<p>10. DESCRIPTION OF PROPOSED CONSTRUCTION: This project constructs High Performance Computing Center totaling 60 MW of technical load. The effort includes building shell and core or modular structural components; finished flooring (both raised and administrative); ceiling; electrical, mechanical, back-up generation to include associated air pollution control equipment as required to support critical processes and fire suppression systems. Building utilities will include building electrical service, chilled water equipment and comfort cooling systems, communications backbone, fire alarm and protection systems and plumbing. Site infrastructure will include primary electrical service to the site, stormwater management to mitigate environmental impact per EISA requirements, domestic water, reclaimed water sewer and as required all connection fees. Security measures include, but are not limited to, a permanent Visitor Control Center (VCC) for personnel, an interim Visitor Control Center for construction personnel, interim and permanent perimeter security with fencing, access control facilities, a permanent Vehicle Cargo Inspection Facility (VCIF), an interim Vehicle Cargo Inspection Facility for construction and internal security systems. Physical and Technical security of the construction site will be assured. The requirement includes, but is not limited to, substations, roadways, adequate parking, warehousing, potable water, waste water management, storm water management, CBRN detection and any other requirements resulting from design and or mission developments and final site(s) determination. This project will be designed in accordance with the Uniform Federal Accessibility Standards (UFAS) Americans with Disabilities Act (ADA) Accessibility Guidelines and Antiterrorism Force Protection (ATFP) standards. Unified Facilities Criteria (UFC) will be an integral part of design consideration. This project is to be compliant with the current version of the Maryland Procurement Office (MPO), Facilities Engineering Design Standards (FEDS). The design/construction is to be capable of concurrent maintainability. The HPCC program will establish the supporting infrastructure for the HPCC capability on Site M and is not dependent on the Integrated Cyber Center (ICC). The ICC program will connect into this supporting infrastructure and fund increases in infrastructure capacity where necessary to accommodate the ICC capability.</p>					

1. Component NSA/CSS DEFENSE	FY 2012 MILITARY CONSTRUCTION PROJECT DATA		2. Date February 2011
3. Installation and Location Fort Meade, Maryland		4. Project Title HIGH PERFORMANCE COMPUTING CENTER INCREMENT 1 (HPCC)	
5. Program Element	6. Category Code 141	7. Project Number TBD	8. Project Cost (\$000) \$860,579 Authorized FY12 \$860,579 Appropriated FY12 \$29,640
11. REQUIREMENT: ~60 MW Tech Load ADEQUATE: None SUBSTANDARD: None			
<u>PROJECT</u> : Construct ~60 MW HIGH PERFORMANCE COMPUTING CENTER.			
<u>REQUIREMENT</u> : This project is required to provide approximately 60MW of technical load High Performance Computing Center support to mission operations. The project will include but not be limited to the following and any other requirements resulting from design and or mission developments:			
(1) Site Planning/Project Management			
a) Mechanical and Electrical plants designed to prevent/reduce transfer of noise and vibrations to the computer areas.			
b) Adequate management facilities for U.S. Government and local services will be provided including interim and permanent parking, roads and project management trailers plus any other requirements resulting from design and or mission developments.			
(2) Facilities			
a) Computing center technical load of 60 MW distributed across raised floor is a design parameter for the facility.			
b) The infrastructure support area and administrative areas will be designed to support state-of-the-art high-performance computing devices and associated hardware architecture.			
c) Enhancements to the building for IT and security include construction as a Sensitive Compartmented Information Facility (SCIF), as well as, requirements related to Anti-terrorism/Force Protection (AT/FP).			
d) Visitor Control; Vehicle Inspection Centers; permanent and temporary utilities to site; adequate parking, roads, trailers, and warehousing; and kennel and any other requirements resulting from design and or mission developments.			
(3) Structural			
a) Technical load will be distributed across the computing areas.			
b) Seismic considerations are to be made in the facility design.			
c) Computing center areas are to have depressed slab construction with a floor load rating of approximately 600 PSF.			
d) Facility command and control contained in a central modular office component.			
e) Facility will be designed and constructed in accordance with the Unified Facilities Criteria (UFC).			
f) Facility will have loading docks with vehicle bays, which will be equipped with dock levelers sized to handle tractor trailers and any other requirements resulting from design and or mission developments.			
(4) Electrical			
a) Design technical load capacity is 60 MW with loads distributed across the computing center areas.			
b) Supervisory Control and Data Acquisition (SCADA) to either PDU level or distribution panel level and EMCS, as required.			
c) Concurrent maintainability / reliability and any other requirements resulting from design and or mission developments will be an integral part of design consideration.			
(5) Mechanical			
a) Chilled water system will be designed to support both air and water-cooled equipment, with SCADA and EMCS as required.			
b) Each computer center area will have air and water-cooled equipment with Computer Room Air Handlers (CRAHs) and Air Conditioners (CRACs) located external to the raised floor area. The piping headers / systems are to be designed to accommodate full electrical heat load.			
c) Back-up capability for mechanical equipment and air distribution.			
d) Cooling towers, Potable water, Water Treatment systems and Grey water systems .			
e) Fire protection - Double interlocked pre-action fire protection system for all electrical and mechanical support spaces.			
f) Wet pipe for administrative and raised floor areas per DOD standards. Data halls will be provided with a clean agent fire suppression system.			
g) Concurrent maintainability / reliability and any other requirements resulting from design and or mission developments will be an integral part of design consideration.			
(6) Security Systems			
a) Video surveillance, Intrusion detection and CBRN detection systems, and interim and permanent perimeter security with fencing.			
b) Explosive Storage Vessel			
c) Card access control system and any other requirements resulting from design and or mission developments.			

1. Component NSA/CSS DEFENSE	FY 2012 MILITARY CONSTRUCTION PROJECT DATA		2. Date February 2011																																																																																												
3. Installation and Location Fort Meade, Maryland		4. Project Title HIGH PERFORMANCE COMPUTING CENTER (HPCC) INCREMENT 1																																																																																													
5. Program Element	6. Category Code 141	7. Project Number TBD	8. Project Cost (\$000) \$860,579 Authorized FY12 \$860,579 Appropriated FY12 \$29,640																																																																																												
Facility will be designed and certified to the highest LEED certification attainable within available resources with a target of LEED-NC Silver and will include: sustainable site characteristics, water and energy efficiency, materials and resources criteria, and indoor environmental quality.																																																																																															
<u>CURRENT SITUATION:</u> No current data processing capability exists at the planned location to meet anticipated mission requirements.																																																																																															
<u>IMPACT IF NOT PROVIDED:</u> Current and anticipated mission requirements will not be met without completion in the specified time frame.																																																																																															
<u>ADDITIONAL:</u> a) The project will be coordinated with the installation physical security plan, and all physical security measures are included. b) All required environmental and AT/FP measures are included. c) An economic analysis has been prepared and used in evaluating this project. This project is the most cost effective method to satisfy the requirement. d) This project will provide government support facilities, including but not limited to trailers or other suitable office space, communications equipment and services, furniture and other support as required managing the design and construction phases of the project and any other requirements resulting from design and or mission developments.																																																																																															
/s/ _____ Jeffrey P. Rutt, P.E. Technical Director, I&L																																																																																															
12. SUPPLEMENTAL DATA:																																																																																															
<table border="0"> <tr> <td colspan="4" data-bbox="73 1281 1560 1312">a) Status</td> </tr> <tr> <td data-bbox="73 1312 1006 1344">(i) Date Design Started</td> <td data-bbox="1006 1312 1560 1344"></td> <td data-bbox="1006 1312 1560 1344"></td> <td data-bbox="1006 1312 1560 1344">Dec 2010</td> </tr> <tr> <td data-bbox="73 1344 1006 1375">(ii) Percent Completed as of Jul 2011</td> <td data-bbox="1006 1344 1560 1375"></td> <td data-bbox="1006 1344 1560 1375"></td> <td data-bbox="1006 1344 1560 1375"><35%</td> </tr> <tr> <td data-bbox="73 1375 1006 1407">(iii) Date Design - Build RFP Completed</td> <td data-bbox="1006 1375 1560 1407"></td> <td data-bbox="1006 1375 1560 1407"></td> <td data-bbox="1006 1375 1560 1407">Feb 2012</td> </tr> <tr> <td data-bbox="73 1407 1006 1438">(iv) Parametric Estimates have been used to develop project cost</td> <td data-bbox="1006 1407 1560 1438"></td> <td data-bbox="1006 1407 1560 1438"></td> <td data-bbox="1006 1407 1560 1438"></td> </tr> <tr> <td data-bbox="73 1438 1006 1470">(v) Type of Design Contract</td> <td data-bbox="1006 1438 1560 1470"></td> <td data-bbox="1006 1438 1560 1470"></td> <td data-bbox="1006 1438 1560 1470">Design/Build</td> </tr> <tr> <td colspan="4" data-bbox="73 1470 1560 1501">b) Basis</td> </tr> <tr> <td data-bbox="73 1501 1006 1533">(i) Standard or Definitive Design:</td> <td data-bbox="1006 1501 1560 1533"></td> <td data-bbox="1006 1501 1560 1533"></td> <td data-bbox="1006 1501 1560 1533">Yes</td> </tr> <tr> <td data-bbox="73 1533 1006 1564">(ii) Date Design was Most Recently Used:</td> <td data-bbox="1006 1533 1560 1564"></td> <td data-bbox="1006 1533 1560 1564"></td> <td data-bbox="1006 1533 1560 1564">N/A</td> </tr> <tr> <td data-bbox="73 1564 1006 1596">(iii) Percentage of Design Utilizing Standard Design</td> <td data-bbox="1006 1564 1560 1596"></td> <td data-bbox="1006 1564 1560 1596"></td> <td data-bbox="1006 1564 1560 1596">N/A</td> </tr> <tr> <td colspan="4" data-bbox="73 1596 1560 1627">c) Total Design Cost (Total \$000)</td> </tr> <tr> <td data-bbox="73 1627 1006 1659">(i) Production of Plans and Specs</td> <td data-bbox="1006 1627 1560 1659"></td> <td data-bbox="1006 1627 1560 1659"></td> <td data-bbox="1006 1627 1560 1659"></td> </tr> <tr> <td data-bbox="73 1659 1006 1690"> Design-Build RFP - P&D</td> <td data-bbox="1006 1659 1560 1690"></td> <td data-bbox="1006 1659 1560 1690"></td> <td data-bbox="1006 1659 1560 1690">\$35,000</td> </tr> <tr> <td data-bbox="73 1690 1006 1722"> Design-Build Design - MILCON</td> <td data-bbox="1006 1690 1560 1722"></td> <td data-bbox="1006 1690 1560 1722"></td> <td data-bbox="1006 1690 1560 1722">\$29,937</td> </tr> <tr> <td data-bbox="73 1722 1006 1753">(ii) Total Design Cost</td> <td data-bbox="1006 1722 1560 1753"></td> <td data-bbox="1006 1722 1560 1753"></td> <td data-bbox="1006 1722 1560 1753">\$64,937</td> </tr> <tr> <td data-bbox="73 1753 1006 1785">(iii) Contract</td> <td data-bbox="1006 1753 1560 1785"></td> <td data-bbox="1006 1753 1560 1785"></td> <td data-bbox="1006 1753 1560 1785"></td> </tr> <tr> <td data-bbox="73 1785 1006 1816"> Design-Build RFP</td> <td data-bbox="1006 1785 1560 1816"></td> <td data-bbox="1006 1785 1560 1816"></td> <td data-bbox="1006 1785 1560 1816">\$35,000</td> </tr> <tr> <td data-bbox="73 1816 1006 1848"> Design-Build Design</td> <td data-bbox="1006 1816 1560 1848"></td> <td data-bbox="1006 1816 1560 1848"></td> <td data-bbox="1006 1816 1560 1848">\$29,937</td> </tr> <tr> <td data-bbox="73 1848 1006 1879">(iv) In House</td> <td data-bbox="1006 1848 1560 1879"></td> <td data-bbox="1006 1848 1560 1879"></td> <td data-bbox="1006 1848 1560 1879">\$64,937</td> </tr> <tr> <td data-bbox="73 1879 1006 1911">d) Construction Contract Award</td> <td data-bbox="1006 1879 1560 1911"></td> <td data-bbox="1006 1879 1560 1911"></td> <td data-bbox="1006 1879 1560 1911">Sep 2012</td> </tr> <tr> <td data-bbox="73 1911 1006 1942">e) Construction Start</td> <td data-bbox="1006 1911 1560 1942"></td> <td data-bbox="1006 1911 1560 1942"></td> <td data-bbox="1006 1911 1560 1942">Dec 2012</td> </tr> <tr> <td data-bbox="73 1942 1006 1974">f) 1st Data Center Module Complete</td> <td data-bbox="1006 1942 1560 1974"></td> <td data-bbox="1006 1942 1560 1974"></td> <td data-bbox="1006 1942 1560 1974">Jun 2014</td> </tr> <tr> <td data-bbox="73 1974 1006 1999">g) Construction Complete - Project</td> <td data-bbox="1006 1974 1560 1999"></td> <td data-bbox="1006 1974 1560 1999"></td> <td data-bbox="1006 1974 1560 1999">Dec 2015</td> </tr> </table>				a) Status				(i) Date Design Started			Dec 2010	(ii) Percent Completed as of Jul 2011			<35%	(iii) Date Design - Build RFP Completed			Feb 2012	(iv) Parametric Estimates have been used to develop project cost				(v) Type of Design Contract			Design/Build	b) Basis				(i) Standard or Definitive Design:			Yes	(ii) Date Design was Most Recently Used:			N/A	(iii) Percentage of Design Utilizing Standard Design			N/A	c) Total Design Cost (Total \$000)				(i) Production of Plans and Specs				Design-Build RFP - P&D			\$35,000	Design-Build Design - MILCON			\$29,937	(ii) Total Design Cost			\$64,937	(iii) Contract				Design-Build RFP			\$35,000	Design-Build Design			\$29,937	(iv) In House			\$64,937	d) Construction Contract Award			Sep 2012	e) Construction Start			Dec 2012	f) 1 st Data Center Module Complete			Jun 2014	g) Construction Complete - 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1. COMPONENT NSA/CSS DEFENSE		FY 2012 MILITARY CONSTRUCTION PROGRAM					2. DATE February 2011				
3. INSTALLATION AND LOCATION UTAH NATIONAL GUARD FACILITY CAMP WILLIAMS, UTAH			4. COMMAND NSA/CSS			5. AREA CONSTRUCTION COST INDEX 1.03					
6. PERSONNEL STRENGTH		PERMANENT			STUDENTS			SUPPORTED		TOTAL	
		OFF	ENL	CIV	OFF	ENL	CIV	OFF	ENL	CIV	
a. AS OF 30 SEP 2008		0	0	0	0	0	0	0	0	0	
b. END FY 2010		0	0	0	0	0	0	0	0	0	
7. INVENTORY DATA (\$000)											
A. TOTAL ACREAGE										200	
B. INVENTORY TOTAL AS OF 30 SEP 2008										208,400	
C. AUTHORIZED NOT YET IN INVENTORY										1,529,500	
D. AUTHORIZATION REQUESTED IN THIS PROGRAM										0	
E. AUTHORIZATION INCLUDED IN FOLLOWING PROGRAM										0	
F. PLANNED IN NEXT THREE YEARS										0	
G. REMAINING DEFICIENCY										0	
H. GRAND TOTAL										1,737,900	
8. PROJECTS REQUESTED IN THIS PROGRAM:											
<u>CATEGORY</u>	<u>PROJECT</u>	<u>PROJECT TITLE</u>					<u>COST</u>	<u>DESIGN</u>	<u>DESIGN</u>		
<u>CODE</u>	<u>NUMBER</u>						<u>(\$000)</u>	<u>START</u>	<u>COMPLETE</u>		
141	21078	IC CNCI Data Center 1 - (FY12)					246,401	Nov 08	Feb 10		
9. FUTURE PROJECTS:											
a. INCLUDED IN FOLLOWING PROGRAM											
<u>CATEGORY</u>	<u>PROJECT</u>	<u>PROJECT TITLE</u>					<u>COST</u>				
<u>CODE</u>	<u>NUMBER</u>						<u>(\$000)</u>				
141	21078	IC CNCI Data Center 1 – (FY13)					191,414				
b. PLANNED IN NEXT THREE YEARS											
<u>CATEGORY</u>	<u>PROJECT</u>	<u>PROJECT TITLE</u>					<u>COST</u>				
<u>CODE</u>	<u>NUMBER</u>						<u>(\$000)</u>				
10. MISSION OR MAJOR FUNCTION: Agency activities are classified.											
11. OUTSTANDING POLLUTION AND SAFETY DEFICIENCIES:											
A. AIR POLLUTION										0	
B. WATER POLLUTION										0	
C. OCCUPATIONAL SAFETY AND HEALTH										0	

1. Component NSA/CSS DEFENSE		FY 2012 MILITARY CONSTRUCTION PROJECT DATA		2. Date February 2011	
3. Installation and Location UTAH NATIONAL GUARD FACILITY, CAMP WILLIAMS, UTAH			4. Project Title IC CNCI DATA CENTER 1 INCREMENT 3		
5. Program Element		6. Category Code 141	7. Project Number 21078	8. Project Cost (\$000) \$1,529,500 Authorized FY12 \$0 Appropriated FY12 \$246,401	
9. COST ESTIMATES					
Item		U/M	Quantity	Unit Cost	Cost (\$000)
PRIMARY FACILITY					<u>1,139,499</u>
Building Modular Shells		LS			(56,420)
Mechanical		LS			(215,170)
Electrical		LS			(648,779)
Building Enhancements		LS			(111,270)
Site Preparation		LS			(19,380)
Fire Protection		LS			(5,050)
Building Security (Antiterrorism/Force Protection)		LS			(15,340)
Communications		LS			(6,010)
Commissioning		LS			(30,600)
General Conditions		LS			(31,480)
SUPPORTING FACILITIES					<u>190,600</u>
Visitor Control Center/Interim Visitor Control Center		LS			(14,390)
Vehicle Control Center/Interim Vehicle Control Center		LS			(3,850)
Primary Electrical Service		LS			(23,500)
Site Improvements/Demolition		LS			(6,500)
General Construction (water, sewer, gas)		LS			(105,410)
Site Security Perimeter Control (Antiterrorism/Force Protection)		LS			(26,800)
Construction Security		LS			(10,150)
TOTAL CONSTRUCTION COST					<u>1,330,099</u>
Contingency (~5%)					66,540
SUBTOTAL					<u>1,396,639</u>
SIOH (5.70%)					79,608
Design/build - Design Cost					53,204
Total Project Request					<u>1,529,451</u>
TOTAL PROJECT COST (ROUNDED)					<u>1,529,500</u>
Equipment & Utilities Provided From Other Appropriations					(192,000)
<p>10. DESCRIPTION OF PROPOSED CONSTRUCTION: This project constructs a 65 MW technical load data center to include modular structural components; finished flooring (both raised and administrative); ceiling; generators and associated air pollution control; and electrical, mechanical, and fire suppression systems. Building utilities will include building electrical service, chilled water equipment and comfort cooling systems, communications backbone, fire alarm and protection systems and plumbing. Site infrastructure will include, possible land acquisition in support of utility infrastructure, primary electrical service to the site, storm water management to mitigate environmental impact, water, sewer and as required all connection fees. Existing communications hut will be demolished. The design/construction is to be capable of concurrent maintainability. Adequate management facilities for U.S. Government and local services will be provided. Security measures include, but are not limited to, a permanent Visitor Control Center for data center personnel, an interim Visitor Control Center for construction personnel, interim and permanent perimeter security with fencing, access control facilities, a permanent Vehicle Cargo Inspection Facility, an interim Vehicle Cargo Inspection Facility for construction and internal security systems. Physical and Technical security of the construction site will be assured. The site will be surveyed for unexploded ordinance and remediation action taken as required. The requirement includes but is not limited to substations, roadways, adequate parking, fuel tanks, warehousing, potable water, waste water management, CBRN detection and explosive storage vessels and any other requirements resulting from design and or mission developments. This project will be designed in accordance with the Uniform Federal Accessibility Standards (UFAS)/Americans with Disabilities Act (ADA) Accessibility Guidelines and Antiterrorism Force Protection (ATFP) standards. Unified Facilities Criteria to be an integral part of design consideration. Contingency level based on site security requirements and volatility in construction materials and labor. This project is to be compliant with the current version of the Maryland Procurement Office (MPO), Facilities Engineering Design Standards (FEDS).</p>					

1. Component NSA/CSS DEFENSE	FY 2012 MILITARY CONSTRUCTION PROJECT DATA		2. Date February 2011
3. Installation and Location UTAH NATIONAL GUARD FACILITY, CAMP WILLIAMS, UTAH			4. Project Title IC CNCI DATA CENTER 1 INCREMENT 3
5. Program Element	6. Category Code 141	7. Project Number 21078	8. Project Cost (\$000) \$1,529,500 Authorized FY12 \$0 Appropriated FY12 \$246,401

11. REQUIREMENT: 65 MW Tech Load ADEQUATE: None SUBSTANDARD: None

PROJECT: Construct a 65 MW Technical Load Data Center.

REQUIREMENT: This project is required to provide a 65MW technical load data center to support mission operations. The project will include but not be limited to the following and any other requirements resulting from design and or mission developments:

- (1) Site Planning/Project Management
 - a) Mechanical and Electrical plants designed to prevent / reduce transfer of noise and vibrations to the data centers.
 - b) Adequate management facilities for U.S. Government and local services will be provided including, interim and permanent parking, roads and project management trailers and any other requirements resulting from design and or mission developments.
- (2) Facilities
 - a) Data center technical load of 65 MW distributed across raised floor is a design parameter for the facility.
 - b) The infrastructure support area and administrative areas will be designed to support state-of-the-art high-performance computing devices and associated hardware architecture.
 - c) Enhancements to the building for IT and security include construction as a Sensitive Compartmented Information Facility (SCIF), as well as, requirements related to Antiterrorism Force Protection (AT/FP).
 - d) Visitor Control, Vehicle Inspection Centers, permanent and temporary Utilities to site, adequate parking, roads, trailers, warehousing, Kennel and any other requirements resulting from design and or mission developments.
- (3) Structural
 - a) Technical load will be distributed across the data center areas.
 - b) Seismic considerations are to be made in the facility design.
 - c) Data center areas are to have depressed slab construction with a floor load rating of 1,200 PSF.
 - d) Facility command and control contained in a central modular office component.
 - e) Facility will be designed and constructed in accordance with the Unified Facilities Criteria (UFC).
 - f) Facility will have a loading dock with vehicle bays, at least three (3) of which will be equipped with dock levelers sized to handle tractor trailers and any other requirements resulting from design and or mission developments.
- (4) Electrical
 - a) Design technical load capacity is 65 MW with loads distributed across the data center areas.
 - b) Supervisory Control and Data Acquisition (SCADA) to either PDU level or distribution panel level and EMCS, as required.
 - c) Dedicated substation for each critical Uninterruptible Power System (UPS).
 - d) Generators include Selective Catalytic Reduction (SCR) pollution control equipment, fuel oil storage tanks and distribution system.
 - e) Primary and Secondary Substations, UPS, Generator backup for facility systems and concurrent maintainability / reliability and any other requirements resulting from design and or mission developments.
- (5) Mechanical
 - a) Chilled water system is to be designed to support both air and water-cooled equipment, with SCADA and EMCS as required.
 - b) Each data center area is to have air and water-cooled equipment with Computer Room Air Handlers (CRAHs) and Air Conditioners (CRACs) located external to the raised floor area. The piping headers / systems are to be designed to accommodate full electrical heat load.
 - c) Back-up capability for mechanical equipment and air distribution.
 - d) Cooling towers, Potable water, Water Treatment systems.
 - e) Fire protection - Double interlocked pre-action fire protection system for all electrical and mechanical support spaces.
 - f) Wet pipe for administrative and raised floor areas per DOD standards. Data halls will be provided with a clean agent fire suppression system and any other requirements resulting from design and or mission developments.
- (6) Security Systems
 - a) Video surveillance, Intrusion detection and CBRN detection systems, and interim and permanent perimeter security with fencing.
 - b) Explosive Storage Vessel
 - c) Card access control system and any other requirements resulting from design and or mission developments.

1. Component NSA/CSS DEFENSE	FY 2012 MILITARY CONSTRUCTION PROJECT DATA		2. Date February 2011
3. Installation and Location UTAH NATIONAL GUARD FACILITY, CAMP WILLIAMS, UTAH		4. Project Title IC CNCI DATA CENTER 1 INCREMENT 3	
5. Program Element	6. Category Code 141	7. Project Number 21078	8. Project Cost (\$000) \$1,529,500 Authorized FY12 \$0 Appropriated FY12 \$246,401

REQUIREMENT (Continued)

Facility will be designed and certified to the highest LEED certification attainable within available resources with a target of LEED-NC Silver and will include: sustainable site characteristics, water and energy efficiency, materials and resources criteria, and indoor environmental quality.

CURRENT SITUATION:

No current data processing capability exists at the planned location.

IMPACT IF NOT PROVIDED:

Current and anticipated mission requirements will not be met without completion in the specified time frame.

ADDITIONAL:

- a) This project has been coordinated with the installation physical security plan, and all physical security measures are included.
- b) All required environmental and AT/FP measures are included.
- c) An economic analysis has been prepared and used in evaluating this project. This project is the most cost effective method to satisfy the requirement.
- d) This project will provide government support facilities, including but not limited to trailers or other suitable office space, communications equipment and services, furniture and other support as required managing the design and construction phases of the project and any other requirements resulting from design and or mission developments.

/s/ _____
Jeffrey P. Rutt, P.E.
Technical Director, I&L

12. SUPPLEMENTAL DATA:

- a) Status
 - (i) Date Design Started Nov 2008
 - (ii) Percent Completed as of Jan 2009 35%
 - (iii) Date Design - Build RFP Completed Feb 2010
 - (iv) Parametric Estimates have been used to develop project cost
 - (v) Type of Design Contract Design/Build
- b) Basis
 - (i) Standard or Definitive Design: No
 - (ii) Date Design was Most Recently Used: N/A
 - (iii) Percentage of Design Utilizing Standard Design N/A
- c) Total Design Cost (Total \$000)
 - (i) Production of Plans and Specs
 - Design-Build RFP - P&D \$ 45,000
 - Design-Build Design - MILCON \$ 53,204
 - (ii) All Other Design Cost - P&D \$ 15,000
 - (iii) Total Design Cost (iii)=(i)+(ii) or (iv)+(v) \$113,204
 - (iv) Contract
 - Design-Build RFP \$ 45,000
 - Design-Build Design \$ 53,204
 - (v) In House \$ 15,000
- d) Construction Contract Award - Increment 1 Aug 2009
- e) Construction Start - Increment 1 Sep 2009
- f) Construction Complete - Project May 2014

1. COMPONENT NSA/CSS DEFENSE	FY 2012 MILITARY CONSTRUCTION PROGRAM						2. DATE February 2011					
3. INSTALLATION AND LOCATION RAF MENWITH HILL, UNITED KINGDOM	4. COMMAND NSA/CSS						5. AREA CONSTRUCTION COST INDEX 1.10					
6. PERSONNEL STRENGTH		PERMANENT			STUDENTS			SUPPORTED			TOTAL	
USAF Installation		OFF	ENL	CIV	OFF	ENL	CIV	OFF	ENL	CIV		
a. AS OF					x							
b. END FY					CLASS	IFIED						
7. INVENTORY DATA (\$000)												
A. TOTAL ACREAGE												
B. INVENTORY TOTAL AS OF September 30,2010												
C. AUTHORIZED NOT YET IN INVENTORY											0	
D. AUTHORIZATION REQUESTED IN THIS PROGRAM											68,601	
E. AUTHORIZATION INCLUDED IN FOLLOWING PROGRAM											0	
F. PLANNED IN NEXT THREE YEARS											47,561	
G. REMAINING DEFICIENCY											0	
H. GRAND TOTAL											116,162	
8. PROJECTS REQUESTED IN THIS PROGRAM:												
<u>CATEGORY</u>	<u>PROJECT</u>	<u>PROJECT TITLE</u>					<u>COST</u>	<u>DESIGN</u>				
<u>CODE</u>	<u>NUMBER</u>						<u>(\$000)</u>	<u>START</u>				<u>COMPLETE</u>
811-145	MWHL123004	MHS PSC Construction (FY12)					68,601	May 10				Dec 14
9. FUTURE PROJECTS:												
a. INCLUDED IN FOLLOWING PROGRAM												
<u>CATEGORY</u>										<u>COST</u>		
<u>CODE</u>	<u>PROJECT TITLE</u>									<u>(\$000)</u>		
b. PLANNED IN NEXT THREE YEARS												
<u>CATEGORY</u>										<u>COST</u>		
<u>CODE</u>	<u>PROJECT TITLE</u>									<u>(\$000)</u>		
						MHS Power Substation (FY14)			9,000			
						MHS Dormitory Replacement (FY15)			18,316			
						MHS Central Receiving (FY15)			9,641			
						MHS OPS Warehouse (FY15)			10,604			
10. MISSION OR MAJOR FUNCTION Agency activities are classified.												
11. OUTSTANDING POLLUTION AND SAFETY DEFICIENCIES:												
D. AIR POLLUTION									0			
E. WATER POLLUTION									0			
F. OCCUPATIONAL SAFETY AND HEALTH									0			

1. Component NSA/CSS DEFENSE		FY 2012 MILITARY CONSTRUCTION PROJECT DATA		2. Date February 2011	
3. Installation and Location ROYAL AIR FORCE MENWITH HILL, HARROGATE, UNITED KINGDOM			4. Project Title MHS PSC CONSTRUCTION (GENERATOR PLANT)		
5. Program Element	6. Category Code 811-145	7. Project Number MWHL123004	8. Project Cost (\$000) \$68,601		

9. COST ESTIMATES

Item	U/M	Quantity	Unit Cost	Cost (\$000)
Primary Facility				61,295
Construct additional Generator Plant with integration into existing Generators and Control Systems	LS			(59,719)
Building Information Systems	LS			(441)
Demo/Remove Fuel Storage Tanks	LS			(371)
Remediate Existing Fuel Storage Area	LS			(631)
AT/FP	LS			(133)
Support Facilities				1,830
Electric Service	LS			(144)
Water, Sewer, & Gas	LS			(230)
Paving, Walkways, Curbs, & Gutters	LS			(216)
Storm Drainage	LS			(75)
Site Improvements	LS			(154)
Information Systems	LS			(985)
AT/FP	LS			(26)
SUBTOTAL				<u>63,125</u>
CONTINGENCY (5.00%)				3,156
SUBTOTAL				<u>66,281</u>
SIOH (3.50%)				2,320
TOTAL PROJECT COST (ROUNDED)				<u>68,601</u>

10. DESCRIPTION OF PROPOSED CONSTRUCTION: Construct a indoor standby Electric Power Generation Plant for RAF Menwith Hill, to operate in conjunction with existing generators at Site to meet mission loads. This work includes constructing a generator plant with (A) an overhead crane and space for up to nine generators, control room, storage space, administrative space, maintenance work space, large bay doors, break room and toilets; purchase, installation, and commissioning of the generators; (B) fuel storage tanks with spill containment to support the generators for ~28 days; and (C) switchgear, control systems, transformers, generator coolant tank, pad for relocation of coolant and oil storage for generators. It also includes (A) demolishing/removing a portion of the existing 600,000-L storage tanks and containment area, (B) Connecting and integrating to existing generator power distribution and control scheme, site Supervisory Control and Data Acquisition (SCADA) system and energy monitoring and control system (EMCS); and (C) relocating existing utility and communication lines. This project is to be compliant with the current version of the Maryland Procurement Office (MPO), Facilities Engineering Design Standards (FEDS).

11. REQUIREMENT: ~34.8 MW

ADEQUATE: ~24 MW

SUBSTANDARD: ~15.3 MW

PROJECT: Provide additional generator capacity (initially two new 5.4MW generators) housed in new expandable indoor plant to supplement existing MHS back – up electric power generation plant, including integration into existing Generators and Control Systems.

REQUIREMENT: This project is required to provide a reliable, uninterrupted electrical power supply in support of critical communications operations conducted at RAF Menwith Hill. The system will backup commercial power sources with a stand-by electrical power generation system capable of supporting all critical station operations when commercial power fails. In addition, operation of the existing generators has resulted in environmental contamination that will be remediated and monitored as part of this project. It will also provide proper containment to prevent future contamination as the existing generators will continue to be utilized as necessary to meet mission load requirements.

CURRENT SITUATION: RAF Menwith Hill is a communications research and rapid relay station. At present, Nine “Jetsam” type generators, each rated at 1.7MW, provide stand-by power for the station. The generators are currently able to support all operations; however, the demand for electrical power has accelerated in recent years and is expected to approach the system’s capacity soon. The units’ related controls, transformers, and switchgear are sized for the current system and vary in age and condition. Therefore, all components must be upgraded as well to meet the increasing power capability requirement.

1. Component NSA/CSS DEFENSE	FY 2012 MILITARY CONSTRUCTION PROJECT DATA		2. Date February 2011
3. Installation and Location ROYAL AIR FORCE. MENWITH HILL, HARROGATE, UNITED KINGDOM		4. Project Title MHS PSC CONSTRUCTION (GENERATOR PLANT)	
5. Program Element	6. Category Code 811-145	7. Project Number MWHL123004	8. Project Cost (\$000) \$68,601

CURRENT SITUATION (Continued)

The initial generators, built in the mid-1960s, are housed in containers located outdoors and are exposed to the weather. Routine maintenance and major overhauls are difficult due to the minimal clearances within the containers and between the walls and equipment, especially during inclement weather. For example, a failed turbocharger had to be replaced in January 2007 in -2°C weather with gale-force winds. Also, the generators are louder than local noise ordinances allow due to their open location. Over the years, fuel oil and lubricants have contaminated the ground adjacent to the generators, their fuel lines and fuel storage tanks.

Since these units were manufactured in the United States, repairs are delayed waiting on parts and maintenance specialists to arrive. These units were characterized as difficult to maintain due to access and part supply problems in an April 2003 study conducted by a private electrical engineering consultant. All are nearing the end of their useful economic lives.

The existing units run typically 1,600 hours per year when the main commercial power is not available or when it is likely that the main supply could be lost. Brownouts lasting several hours occur approximately 10 times per year. In addition, the stand-by system may be activated during thunderstorms (when lightening may hit a commercial transformer) and during ice storms (when lines may go down). There have been occasions in the past that the installation was forced to use the generators continuously for several weeks to ensure uninterrupted support to mission operations.

IMPACT IF NOT PROVIDED: If this project is not provided, the continuous operational capability of the station will only be met by cobbling together a series of partial fixes that will be costly, inefficient and maintenance-intensive. As the existing equipment ages, breakdowns will become more frequent, making mission support more vulnerable. The installation may face situations where it cannot support all its critical missions as mission load continues to grow beyond the capacity of the currently available generators.

ADDITIONAL: This project has been coordinated with the installation physical security plan; all physical security measures are included. All Anti-Terrorism/Force Protection measures are included. Alternative methods of meeting this requirement have been explored during project development. This project is the only feasible option to meeting the requirement. Sustainable principles will be integrated into the design, development, and construction of the project in accordance with Executive Order (EO) 13123 and other applicable laws and EOs

This project has been considered for joint use potential. The facility will support other components.

NATO SECURITY INVESTMENT: This project is not within a common NATO Infrastructure category, nor is it expected to become eligible.

/s/ _____
Jeffrey P. Rutt, P.E.
Technical Director, I&L

12. SUPPLEMENTAL DATA:

1. Status

(a) Design Start:	Oct 2010
(b) Design 35% Complete:	Jan 2011
(c) Construction Start:	Nov 2012
(d) Construction Complete:	Dec 2014
(e) Type of Contract:	Design/Bid/Build

2. Total Cost

Construction:	\$68,601
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